

## **REMARKS**

### **Status of the Claims**

Upon entry of the present amendment, claims 1 and 4-8 will remain pending in the above-identified application, with claims 1 and 7-8 standing ready for further action on the merits, and remaining claim 4-6 being withdrawn from consideration based on an earlier restriction requirement of the Examiner. Claim 1 has been amended to further clarify the features of the present invention based on the disclosure at page 10, lines 13-17 of the specification. Claim 8 has been added based on the disclosure at page 7, line 18 to page 8, line 19 of the specification. The present amendments to the claims do not introduce new matter into the application as originally filed.

It is noted that a Request for Continued Examination (RCE) has been filed with this submission. As such entry of the instant amendment and favorable action on the merits are earnestly solicited.

### **Claim Rejections Under 35 U.S.C. § 103(a)**

In the Final Office Action dated March 28, 2011, claims 1-2 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Katsuda US '777 (US 2002/017777) in view of Jordan US '267 (US 5,779,267).

Applicants respectfully traverse and request that the Examiner withdraw the rejection based on the following considerations.

Nonobviousness over the Combination of the Cited References

The present invention is directed to a filter for a gas generator. It is alleged in the Office Action of March 28, 2011 (see page 3 of the Office Action) that “formed by winding” and “bonded by affixing and solidifying of the molten copper” as recited in claim 1 are not given weight since the limitations are directed to the method of forming the apparatus rather than the structure of the apparatus. Applicants respectfully disagree with the Examiner’s position. The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979) (holding “interbonded by interfusion” to limit structure of the claimed composite and noting that terms such as “welded,” “intermixed,” “ground in place,” “press fitted,” and “etched” are capable of construction as structural limitations.). (Emphasis added)

However, Applicants have amended the claims to further clarify the structural features of the present invention. More specifically, claim 1 has been amended to read:

1. A filter for a gas generator, comprising:
  - a single metal wire comprising a core wire of iron and a coating layer of copper,
  - the single metal wire being wound into a tubular shape having intersecting parts of the single metal wire, , wherein
  - thickness of the coating layer on the core is from 0.5  $\mu\text{m}$  to 10  $\mu\text{m}$ , and
  - at each of the intersecting parts of the single metal wire, adjacent parts of the core are firmly fixed each other via the coating layer.

Upon entry of the amendments to the claims, the present invention is further defined over the combination of Katsuda US '777 in view of Huang US '247, as explained below.

The primary reference Katsuda US '777 fails to disclose or suggest the claimed copper coated metal wire of the present invention. In order to make up for the deficiency of Katsuda US '777, the Examiner cites the secondary reference Jordan US '267, which discloses a copper coated metal wire.

However, the copper coating of Jordan US '267 is employed in order to protect an iron core from azide or non-azide gas, which causes deterioration of a core material (see *e.g.*, column 4. lines 40-60). Jordan US '267 fails to disclose or suggest that a copper-coated wire is firmly fixed at intersecting parts of a wound wire, thereby improving the anti-deformation property of a filter. Thus, even the combination of the cited references fails to disclose or suggest the claimed feature "*at each of the intersecting parts of the single metal wire, adjacent parts of the core are firmly fixed each other via the coating layer.*"

Therefore, a *prima facie* case of obviousness cannot be established based on the combination of Katsuda US '777 and Jordan US '267. Likewise, there is no rationale and/or reasonable expectation of success based on the combination of the cited references, by which one skilled in the art could arrive at the present invention as claimed, since the cited references fail to disclose or suggest that the copper-coated wire is firmly fixed at intersecting parts of the wound wire.

Based on the foregoing considerations, Applicants respectfully request that the Examiner withdraw the rejection.

**Provisional Request for Interview**

Should the present response not place the application in condition for allowance, Applicants respectfully request a personal interview with the Examiner. The Examiner is respectfully requested to contact the undersigned with regard to scheduling a personal interview with the Examiner.

**Conclusion**

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of the pending claims is allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Toyohiko Konno, Reg. No. L0053 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: \_\_\_\_\_

6/28/11

Respectfully submitted,

By \_\_\_\_\_

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